

ABSTRACT OF THE DISCLOSURE

Double-stranded polynucleotide activates the expression of immune recognition molecules. The polynucleotide can have a minimal length and activates the expression of molecules not encoded by a nucleotide sequence that is not necessarily related to the polynucleotide. The present invention provides for a simple and specific system to activate expression of Class I and/or Class II molecules of the major histocompatibility complex (MHC), and allows regulation of expression of MHC molecules on the cell-surface of antigen presenting cells and other immune cells. Also provided are systems for the screening, identification, and isolation of compounds that increase or decrease this activation.

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